California Information Technology Strategic Plan

January 15

2010

2nd Edition: A Roadmap for Transform

Arnold Schwarzenegger
Governor

Teri Takai
Chief Information Officer

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OFFICE OF THE STATE CHIEF INFORMATION OFFICER

Teri Takai
California Chief Information Officer

Now is an exciting and challenging time in California. California's information technology professionals are meeting these challenges with a renewed commitment to the role that information technology plays in the delivery of state valuable services to California residents and businesses.

We know that the people of California are embracing technology at an unprecedented pace. Californians now register their vehicles and pay their taxes online. They stream real-time traffic information and apply for research grants online. With more than 700 online services available, Californians increasingly choose to interact with government through Internet browsers instead of field offices. This is a tremendous success, but we need to keep pace with the public's growing expectations.

It is essential that we have clear direction and continuity of purpose. As a signal of that renewed commitment, this update displays both qualities by showing how California's IT community is building on our accomplishments, maintaining our momentum and reaching milestones for building our new information technology infrastructure. I am pleased to present the 2010 update to the California Information Technology Strategic Plan. This Plan represents the best of California's IT community and sets the vision and direction that will allow us to meet our challenges.

I would like to acknowledge the hardworking state government IT professionals and agency leaders who have made 2009 such a productive year, especially those who contributed to the Strategic Plan. The outcome of their hard work is a guiding document that reflects the state's best ideas on how to leverage technology to make a difference in people's lives.

I am excited to continue our partnership to ensure that technology enables the delivery of vital services to the people of California.

Sincerely,

Teri Takai

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Foreword

Strategy is about connecting a vision for the future with goals and actions that enable success. Strategy also provides the foundation for establishing priorities. Indeed, great strategies make tough choices easier. The 2010 version of the California Information Technology Strategic Plan extends and enhances the 2009 Plan. The strategic concepts, strategies and goals first introduced in the 2009 Plan are carried forward into the 2010 Plan because these concepts and strategies were never intended to be accomplished in a single year. The 2009 Plan was built on the structure of "Where We Started," and "Where We Are Going." The structure for the 2010 Plan is "What We Accomplished," and "How We Get Where We Are Going."

Unlike the 2009 Plan, the 2010 California IT Strategic Plan is presented in two books. Book 1 reviews IT in state government and discusses accomplishments by the IT community over the past year as measured against last year's strategic concepts; Book 2 enables the strategic concepts for the future through infrastructure consolidation and shared services strategies and lays out strategic actions for better managing the state government's use of information technology.

The 2010 Plan introduces the policy concept of *One IT*, which seeks to foster shared values and common IT approaches, integrate technology and promote data sharing, make state government information transparent and accessible, and develop enterprise applications with standard interfaces.

The California Information Technology Strategic Plan for 2010 tells the story of California's increasingly capable IT program.

Acknowledgements

The State CIO is committed to working closely with the state's business leaders to ensure that business needs drive the application of technology. Therefore, the IT Strategic Plan represents a partnership between the business functions of government and the technology activities that deliver on those business priorities. Technology leadership in California is shared among the State CIO, Agency Information Officers and departmental CIOs. The IT Strategic Plan is the product of their collective guidance.

We gratefully acknowledge the IT leaders of California, listed below, for their significant contributions to this plan and to the information technology programs of California.

Gary Arstein-Kerslake
Andrew Armani
Ann Barsotti
Cathy Cleek
Crystal Cooper
Chris Cruz
Tim Garza
Richard Gillihan
Debra Gonzales
Dale Jablonsky
Wes Major
Mike Nguyen
Joe Panora
Don Richards
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Col. Keith Tresh

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California IT Strategic Plan

Executive Summary

California has long recognized the significant advantages of using information technology to provide needed services to the public. In the past two years, significant progress has been made in addressing the long-standing internal and external issues surrounding the governance and management of information technology within the state. Now, from both a national and state perspective, the perception of California state government has changed from one of being overcome by IT challenges to a state organized to leverage IT to meet its challenges.

By creating the Office of the State Chief Information Officer (OCIO) and supporting the effective use of information technology to enhance the quality of government services and improve the productivity of state operations, the Governor and the Legislature established the necessary conditions for effective IT management. These efforts were furthered in 2009 with the approval of the Governor's IT Reorganization Plan, which integrated the Department of Technology Services, the Office of Information Security and the DGS-Telecommunications Division within the OCIO. The reorganization also provided the OCIO with authority for IT procurement policy, enterprise IT management and established a *federated IT governance model*.

Six Strategic Concepts, first articulated in the 2009 Statewide IT Strategic Plan, serve as the framework for the 2010 Strategic Plan. They are as follows:

1. IT as reliable as a utility – Providing the agile, effective, extensible, reliable and secure IT infrastructure and shared services necessary to meet program needs of state agencies.
2. Fulfilling Technology's potential to transform lives – Providing accessible, reliable and secure services that meet the needs of California's residents and businesses.
3. Self-Governance in the digital age – Enabling greater accountability through enhanced government transparency and accessibility.
4. Information as an asset – Leveraging the state's vast information resources to facilitate informed policymaking and enhance the performance and productivity of state programs and services.
5. Economic and Sustainable – Ensuring that the state's management and use of technology contributes to efficient government operations and furthers the state's environmental goals through the implementation of green IT best practices and policies.
6. Facilitating collaboration that breeds better solutions – Advancing communication and partnerships between stakeholders, external and internal to government, is critical to delivering innovative and effective government policies, programs and services.

In order to transform state government, state program and IT executives must continue to pursue strategies and actions that deliver value to Californians and the programs they rely on. This technology-enabled transformation will occur within an operating framework known as *One IT. One IT* serves as the platform for achieving the Six Strategic Concepts and is characterized by a strong planning capability, an integrated IT organization, defined enterprise architecture policies and standards, effective procurement and human capital management policies and procedures, competencies in project and portfolio management, robust shared services, consolidated IT infrastructure, and effective fiscal and resource management practices.

Thus, our focus is realizing the enterprise approach to technology that characterizes *One IT* in order to deliver enhanced public services and advance the public's priorities, while reducing costs, realizing operating efficiencies, and enhancing agility, reliability, and security.

Book 1

Striving to Be Number 1

"For me life is continuously being hungry. The meaning of life is not simply to exist, to survive, but to move ahead, to go up, to achieve, to conquer."

Governor Arnold Schwarzenegger

Information Technology in California State Government

From the time Americans first traveled west, California has drawn innovative people from around the world, and consequently built a reputation for independence that became a hallmark of its culture. California's innovative tradition has provided the nation and the world with a rich array of social and technological advances. California has always been a bellwether for changing conditions, not only for the United States but also for the developed world. And the nation's golden state is changing; rapidly shifting demographics, growing and fragmented constituent demands and expectations, and nearly 50 percent of public sector employees retiring in the next 10 years. Compounding these changes are continued declines in tax revenues and higher costs of debt in the capital markets. In response to challenges of this class, California's trademark vision has always found an answer.

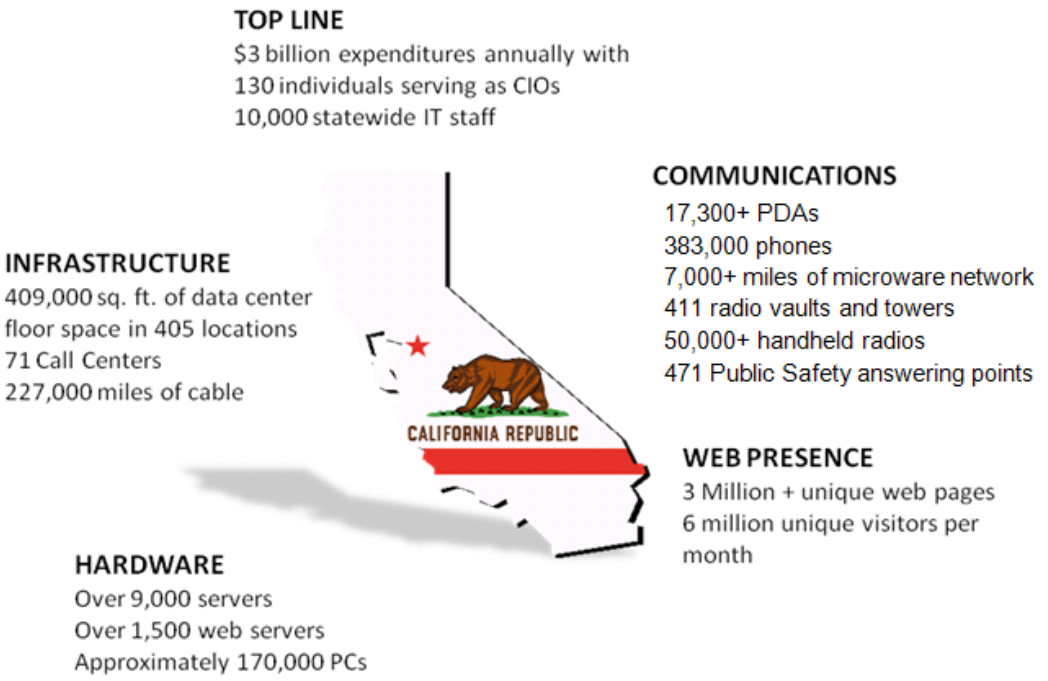
In the same spirit, California government relies on technology to deliver services that are always available, easily accessible, and affordable. California strives to be the leader among states in meeting the needs of residents and businesses for information, public safety communications and government services.

The last two years revealed a number of things about the state of technology in California government. We know that the state has the potential to reach the height of achievement in the management and operation of its technology program. It has become equally clear that these successes improve our government's operations and have the potential to restore the public's trust in government. We have a preponderance of anecdotes that demonstrate the potential that California possesses, and, if we take a broader survey of California's IT landscape, we get a clearer picture about how we are positioned to make good on our potential.

Until recently, California state government has lacked an enterprise, program-driven information technology strategy. Most information technology initiatives, even the most successful ones, were developed by departments without any internal or external consideration of other initiatives. In the past two years, the state has established the governance and technology environment necessary to manage and leverage the state's valuable resources and assets to transform the way the state delivers programs and services.

Delivering the Baseline

In an effort to better understand the state's enterprise architecture and IT resources, the Office of the State Chief Information Officer (OCIO) has conducted a series of analyses beginning with the statewide IT survey in May 2008. Through these analyses, we now have a more complete understanding of how state agencies utilize technology resources to deliver services to residents, businesses and internal customers. In addition, the state now has a comprehensive understanding of its IT assets, including its human and financial capital resources and infrastructure.



Expanding upon the Baseline

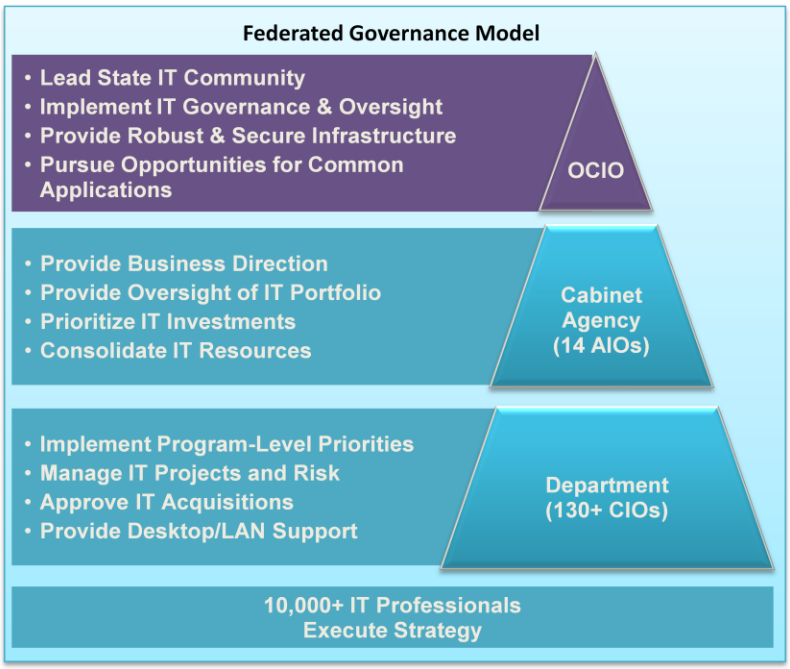
In October 2008, 85 state agencies submitted their first five-year IT capital plans to the OCIO and the Department of Finance. Collectively, these documents formed the basis for the 2009 Statewide Five-Year IT Capital Plan. While the 2009 California Information Technology Strategic Plan provided the blueprint for linking the program functions of government with the technology activities to deliver on policy and program priorities, the 2009 Statewide IT Capital Plan established the foundation for ensuring that all IT investments support state and agency policy priorities, program direction, and the alignment of IT investments within enterprise architecture. Collecting information on the planned IT activities for a five-year period provides policy makers, program and IT leaders with a clear picture of how technology is used and is planned to be used in the future.

In their first iteration, agency IT capital plans also provided the OCIO with a view of all reportable projects and IT investments, including infrastructure investments, proposed by agencies and departments through state fiscal year 2014-15. In addition, the plans included supplemental information concerning: enterprise architecture; information security; workforce development, workforce and succession planning; portfolio and project management; and IT governance.

Organizing for Success

Modern technology governance is no longer just about technology; it is about effective leadership in managing the use of technology to meet an organization's business needs. It includes the structures and processes for setting direction, establishing standards and principles, and prioritizing IT investments that leverage technology to provide value to the public as well as internal customers. It is the mechanism for deciding who makes what decisions about technology use by creating an accountability framework.

Approved on May 10, 2009, the Governor's IT Reorganization Plan integrated the Department of Technology Services, the Office of Information Security and the DGS – Telecommunications Division within the OCIO. The reorganization also provided the OCIO with authority for IT procurement policy, enterprise IT management and established a *federated IT governance model* to define the reporting relationship between the State CIO, and Agency and department technology leaders. The Reorganization Plan also consolidated key enterprise information technology functions under the OCIO.

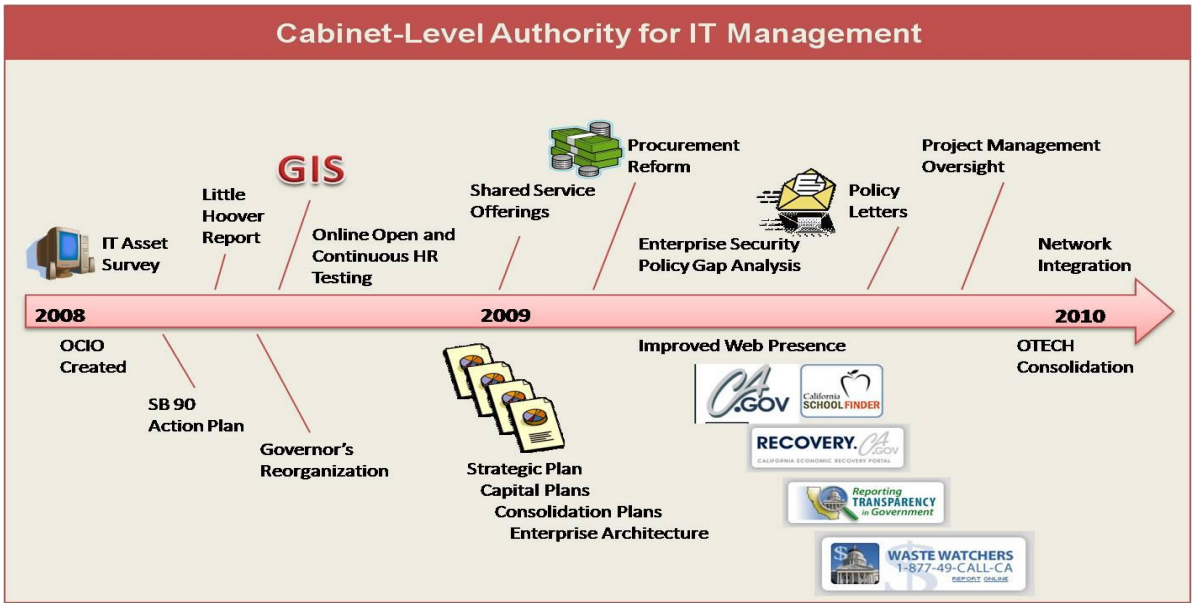


As the result of the Reorganization Plan, the State CIO serves as the primary point of accountability for, and management of, the state's integrated information technology, public safety communications and security program. This

governance model ensures the strategic use of technology resources statewide by bringing together the state's core IT policy and operating functions into a single organization. To date, the reorganization has improved coordination and collaboration within the state's IT community and resulted in significant efficiencies in technology planning and implementation.

What We've Done

Even as the OCIO is charting California's IT future,
We have begun to implement the vision



In the past year, the OCIO and the state's IT community have made great strides towards fulfilling the six strategic concepts presented in the 2009 California IT Strategic Plan. The next section provides an overview of these accomplishments within the strategic concepts; the section is organized as follows:

1. A *Perspective* by a *State IT leader* on the Strategic Concept.
2. The *Strategic Concept* and a brief *description of that concept*.
3. California's accomplishments that further the Strategic Concept.
4. A *California IT effort or project* that exhibits the qualities of the Strategic Concept.

Perspective on Security

Mark Weatherford, Chief Information Security Officer

California is committed to be the leader among states in securing information collected and used by government. With the reorganization of major IT functions into the OCIO, the Office of Security (OIS) has the stature and authority to protect information systems and safeguard public information. Even with limited resources in this difficult economy, it has been a fruitful year for OIS. We have reviewed dozens of state agency disaster recovery plans and responded to, assisted with and monitored over 1000 incident reports. The OIS continues its collaboration with CalEMA and CHP on the RIMS Replacement Project. This project will provide accurate and readily accessible information to prepare, mitigate, respond, and recover from the effects of an emergency cyber security event.

We have published the first ever California Information Security Strategic Plan and developed the "*Guideline for Establishing Data Exchange and System Interconnection Agreements Between Government Agencies."* Working with DPA, DGS, and several state agencies, we developed the state's Telework Security Standard. In addition, we have completed Phase I of the information security policy refresh project. The objective is to review and update Section 5300 of the State Administrative Manual (SAM).

Finally, The OIS was awarded three grants from the US Department of Homeland Security. The first was to educate local governments on cyber security threats in a shared Community Cyber Security Maturity Model (CCSMM) project with Delaware and Texas. The second is to perform an enterprise security risk assessment and implementation of a standard framework across the state. The third project is to secure California's domain name service.

Strategic Concept 1:

IT as Reliable as a Utility

Description: Providing the agile, effective, extensible, reliable and secure IT infrastructure and shared services necessary to meet programmatic needs of state agencies.

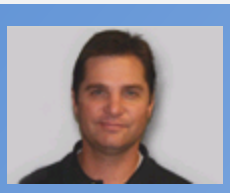
Enhanced Agility, Cost-Effectiveness, Reliability, and Security

- Developed an IT infrastructure consolidation framework for agency consolidation planning.
- Reduced data center rates by more than $12.9 million.
- Enhanced the state's backup and disaster recovery capabilities through a data center partnership with the State Compensation Insurance Fund.
- Implemented the E-Hub shared services solution to provide state agencies with improved e-mail security through a common e-mail hygiene service.
- Received $3.7 million to enhance cyber security across the state from the Department of Homeland Security grant program.
- Delivered the first-ever California Information Security Strategic Plan.
- Received $4 million federal grant to enhance California's 9-1-1 network infrastructure.
- Successfully completed customer pilots for networked managed services.
- Established policy requiring OCIO approval for data center construction curbing the growth of the state's data centers and server rooms.

Best of California
Excellence in IT Operations, Support and Service

Information Management Services Division
Department of Personnel Administration
The Department of Personnel Administration IT staff has fostered a willingness to meet critical business needs now and for the future. Improvements in the infrastructure, server, application and development environment have occurred in just over six months with only 12 full time staff. Inheriting a network/server infrastructure that was struggling to remain operational, they developed a new, stable environment with increased security, capacity, and performance; which allowed staff time to implement workforce development plans and enhance the robust environment (e.g. storage capacity has increased 20,000 percent). New systems, such as a governance process, piloting environment, and content management and document management systems have been implemented, providing efficiencies and economies of scale.

Perspective on Online Services



Bill Maile, Communications Director, OCIO

Led by State CIO Teri Takai, this was an impressive year for California's IT community and the OCIO as we worked to achieve many things that helped us carry out our mission. The Governor and Legislature created the agency in 2008 to provide oversight and statewide coordination of information technology projects. Not to miss an opportunity to promote some of our accomplishments, here's a look back at 2009:

In February, organized by Legislative Director Jon Dickinson, the OCIO hosted one of two town hall style forums to facilitate a dialogue with the vendor community and give them the ability to come to us with projects and emerging technologies that can help us better deliver services to Californians. The forum was so successful, a second was held in April to continue the dialogue.

In April, State CIO Teri Takai joined Governor Schwarzenegger in launching a new website to increase government transparency. The site is unprecedented with publicly available information including the Statement of Economic Interests, Form 700, and the Travel Expense claims for the Governor's Office Senior Staff and Deputies, Agency Secretaries, Agency Undersecretaries and Department Directors.

With the first article written by Michael Byrne on GIS, the OCIO launched The Tech Blog, a regularly updated source of information for the IT community and website visitors. The Tech Blog has also been used as a quotable source for the news media.

In June, State CIO Teri Takai launched the State of California's newly redesigned Web portal, CA.gov. The site has an improved, interactive design, linking to new features, including widgets, social networking Web sites and news and information provided by state agencies, departments, boards, commissions and more.

In July, Takai launched a new online data repository on the California State Portal, Ca.gov designed to increase government transparency and spur innovation and economic development in California. By posting state government data in raw, machine-readable formats, it can be reused in different ways, allowing the public greater access to build custom applications to analyze and display the information. The data includes information on the economy, public health, transportation, environment and more on a single website. She also announced a new application hosted on the CA.gov portal which helps citizens and businesses find and contact government offices on their iPhones.

In September, the State of California won second place in the national "Best of the Web" competition held by the Center for Digital Government. The competition recognizes significant achievement in the overall web presence of state and local governments.

Strategic Concept 2:

Fulfilling Technology's Potential to Transform Lives

Description: Providing accessible, reliable and secure services that meet the needs of California's residents and businesses.

Implemented Innovative Applications and Tools

- Launched SchoolFinder.ca.gov allowing parents in California to access vital school statistics.
- Redesigned the state's Web portal, www.ca.gov, to ensure an accessible, intuitive and searchable online experience.
- Created Web portal that provides access to all online services for residents and businesses.
- Posted more than 500 videos on California's YouTube channel which have been viewed more than 400,000 times.

Expanded Online Services

- Raised the adoption rate for online Unemployment Insurance benefit claims to 80 percent of all UI benefit claims.
- Received more than 10 million individuals and businesses income tax returns online through the Franchise Tax Board's e-file program; this represents an adoption rate of 77 percent.
- Issued more than 5 million vehicle registrations through the DMV's suite of online services.
- Increased the number of online services available to the public from 400 to more than 700.

Best of California
Most Innovative Use of Technology

iPhone Government Services Locator, Office of the Chief Information Officer
Using location-aware GPS technology, the CA.gov "Locater" pinpoints the user's current location and presents the nearest government offices. Users can click-to-call agency telephone numbers, get directions on a map, or send an e-mail - instead of visiting multiple Web sites for contact information and driving directions to public offices. Users can also search by zip code even when network connectivity is not available. The application runs on the iPhone/iPod operating system (rather than in a browser), uses the iPhone's built-in GPS capabilities, integrates with Google maps, and the Web-based online repository of the state offices and service centers is downloaded by the iPhone application on demand.

Perspective on ARRA Transparency

Joe Camicia,
Chief of Staff OCIO

As our agency works on securing ARRA stimulus funding for broadband projects, I just want to give an update with where we are in the process. The OCIO is working with the California Public Utilities Commission, the California Emerging Technology Fund and local government representatives to share information, discuss projects and provide what guidance we can to ensure that California receives our fair share of ARRA stimulus dollars.

We do know that there are two sources of funding - $4.7 billion from the National Telecommunications and Information Administration (NTIA) and $2.5 billion from the Rural Service Utility. There will also be $350 million available for broadband mapping.

Our focus will be on funding projects that create jobs and adhere to the seven goals in the 2008 Report of the Governor's Broadband Taskforce, which by the way you can click here to view.

In anticipation of a short turnaround time for project submittals, we are taking proposal concepts to get a sense of what ideas are out there. Anyone interested in submitting a proposal concept can visit the Recovery.ca.gov website for more information.

The rules and regulations governing stimulus funding for broadband are expected to be released in late June or early July. Stay tuned.

Strategic Concept 3:

Self Governance in the Digital Age

Description: Enabling greater accountability through enhanced government transparency and accessibility.

Enhanced Transparency

- Developed and launched California's ARRA reporting Web site, Recovery.ca.gov, ensuring transparency in the expenditure of federal recovery funds.
- Launched a transparency portal (ReportingTransparency.ca.gov), which posts statements of economic interests and travel expense information for senior government officials, internal and external audits of state agencies and programs, and information on purchases by state agencies.
- Created the California data repository Web site allowing enhanced public access to raw, machine-readable data in areas including: demographics, the economy, public health, transportation, and the environment.

Increased Accountability

- Launched the "Waste Watchers" function on the Governor's Web site allowing anyone to report the misuse or inefficient use of state resources
- Established the IT project reporting Web site, which makes IT project documents and status reports available online to the public.
- Initiated the IT acquisition planning process to analyze and monitor IT spending by state agencies.

Best of California
Best State Government Web Site

Agency Web Site, Department of Food and Agriculture
The California Department of Food and Agriculture (CDFA) Web site is the gateway and principal navigation method to the department's six divisions and their programs. Redesigned for an improved user experience and a standardized look and feel with the state portal, the Web site offers quick access to all of its programs using identifiable icons at the top of the page, provides frequently-updated "hot topics", ability to browse links by subject matter, a visual listing of CDFA's services provided to the public, meeting notifications, funding sources, current news, laws and regulations pertaining to the industry, statistics, directories, agriculture publications, and links to CDFA's Web 2.0 presence on YouTube, Twitter and Facebook.

Perspective on GIS Data

Michael Byrne, California Geospatial Information Officer

'Visualizing California; A Strategy for Enhanced Decision-making Tools for Public Policy Makers and the Public.' is a landmark in California's technology history. For the first time we see a broad brush coalition of leaders in programmatic areas ranging from Business Transportation and Housing to Homeland Security to local government and professional organizations make policy area recommendations on the value Geographic Information Systems (GIS) brings to these business areas. The recommendations are actionable, achievable and demonstrate real value gained in public policy in California. The Task Force recommends four basic executive actions:

1. Establish a State Geographic Information Officer
2. Direct State Agencies to establish GIS leads responsible for aligning GIS investments
3. Establish a competitive GIS matching grant program
4. Develop an integrated outreach program leveraging the value of GIS

In addition this paper identifies the benefits gained from such action and highlights some of the Agencies and Departments in California State government with GIS infrastructure.

Perspective on Data Sharing

Lee Mosbrucker, California Enterprise Architect

The Statewide Data Strategy Report represents a significant first step toward the state's strategic goal of managing data as an asset. The strategy lays out common approach for data which will enhance the efficiency and effectiveness of state government and enable the state to provide better services to California's residents and businesses.

In this report we describe the architecture and action plan necessary to realize a common and shared data environment. With a common shared data environment, the state can develop "data as a service" for the core data that all government entities use. This approach eliminates the duplication of stored data and maximizes the state's investment in data resources.

Central to this strategy is the implementation of a secure and shared network that facilitates data sharing, data integration, and data warehouse consolidation. The Report identifies specific action items and next steps to accomplish the nine initiatives that should be undertaken to implement this strategy, including:

1. Security Architecture
2. Infrastructure Configuration
3. Master Data Repository
4. Enterprise Content Management
5. Enterprise Service Bus
6. Develop Web Services
7. Metadata Repository
8. Trading Partner Framework
9. Data Warehouse Consolidation

Strategic Concept 4:
INFORMATION AS AN ASSET

DESCRIPTION: Leveraging the state's vast information resources to facilitate informed policymaking and enhance the performance and productivity of state programs and services.

Enhanced Data Sharing and Information Management

- Developed the California Data Strategy to facilitate data sharing between California government agencies.
- Designed the overarching architecture and functional design necessary to provide a single, accurate and consistent source of data for state decision makers.

Advanced Geospatial Information Systems Applications and Governance

- Convened California Geospatial Information Systems (GIS) Task Force and produced the California GIS Task Force Report.
- Received $1.3 million (FY 2009/10) and $1 million (FY 2010/11) for GIS activities from the Department of Homeland Security Grant Program.
- Launched the Cal Atlas Clearinghouse, posting all state GIS data online.
- Appointed the first-ever Geospatial Information Officer to coordinate all GIS-related activity in the state.
- Received $2.3 million in stimulus funding for broadband mapping and planning.
- Convened a work group with the 9-1-1 Advisory Board to explore methods to use GIS to enhance 9-1-1 dispatch.

BEST OF CALIFORNIA
BEST APPLICATION SERVING THE PUBLIC

Screening Information System: Prenatal Screening Expansion
The Web-based Screening Information System (SIS) is California's prenatal and newborn genetic disease screening program which identifies genetic disorders in babies before and immediately after birth. SIS provides screening, individual follow-up, counseling, and definitive diagnostic testing for almost 400,000 pregnant women annually. New enhancements of the addition of first trimester and integrated first and second trimester screening provide expectant mothers with results earlier on in pregnancy and also improve detection rates for genetic abnormalities, including a specialized ultrasound that provides additional input to the risk assessment process in addition to blood specimens. Average screenings increased from an average of 32,000 per month to 45,000 per month with the new enhancements.

Perspective on Planning

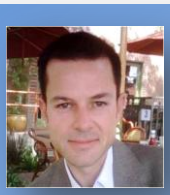
PK Agarwal, Director of the Department of Technology Services

The Office of Technology Services (OTech) has embarked on various cost cutting measures to reduce its fiscal year 09/10 spending by $14 million dollars. The effort encompassed detailed reviews of all existing services contracts as well as hardware and software maintenance contracts. In some cases entire contracts were cancelled while others were reduced or renegotiated to provide better pricing based on the actual services needed. This resulted in $6.2 million in contract savings.

OTech examined existing technical service offerings which have expensive fixed operating costs and very few customers utilizing the service. These service offerings were eliminated and the customers moved to a more cost effective solution. This effort resulted in a savings of $2.3 million dollars.

Finally, the Data Center focused on combining staff assignments and skills to enable proper technical support staff coverage with fewer staff. For example the Data Center's 24X7 Help Desk and Network Operations Center was centralized into one location with remote access to all of the Data Center's computing facilities. This in addition to the savings due to furloughs resulted in $5.5 million savings in personal services.

Perspective on Procurement Reform



Adrian Farley, Chief Deputy CIO

The Governor enacted a series of process and legislative changes included within the 2009-10 budget, that when implemented will greatly shorten the time it takes to get an IT project done, generate project benefits earlier, avoid costs and aid in the modernization of the state's technology environment.

Under the new process, the IT system development lifecycle will be reduced from 3-5 years to 24-26 months, avoiding costs and enhancing productivity. Additionally, the new process incorporates changes to allow multi-stage procurements, which allow a small number of first round bidders to create pilot or prototype versions of the systems will bid on in the final phase of the procurement. The opportunity to evaluate working versions of systems is proven to greatly improve the quality of final solutions.

The IT procurement process improvements also allow the state to engage the vendor community ahead of releasing requests for proposals on new projects. This allows the state's IT industry partners to provide better input into the process, increases competition and ultimately results in better solutions. Other improvements include: streamlining the appeals process, eliminating burdensome reporting requirements, and reduce mandatory financial withholding requirements for qualified IT vendors.

Strategic Concept 5:

Economic and Sustainable

Description: Ensuring that the state's management and use of technology contributes to efficient government operations and furthers the state's environmental goals through green IT best practices and policies.

Improved Operational Efficiency and Effectiveness

- Developed policy and process improvement strategies that will enable the state to achieve more than $1.5 billion in cost savings and avoidance over five years.
- Realized more than $490 million in cost savings and avoidances through the IT capital and acquisitions planning processes.
- Achieved $16.4 million in cost saving in data center operations.
- Brought an enterprise view to information security issues in California through the first-ever Information Security Strategic Plan.
- Enhanced the state's project and portfolio management capabilities through the creation of the Enterprise Program Management Office and the implementation of the California Project Management Methodology and Training program.
- Articulated the state's Enterprise Architecture Framework to standardize technologies and technology enabled business processes.

Implemented Green IT Best Practices

- Implemented the Go-Online program as an alternative to Mainframe printing, reducing the number of pages printed by 54 million pages annually and reducing costs by $700,000 annually.
- Closed South Annex data center, reducing total data center floor space by 7.28 percent (26,500 square feet).

Best of California
The Green IT Award

DASH - Data Automation Software and Hardware System, Franchise Tax Board
In 2008, the Franchise Tax Board partnered with the Department of General Services and the California Energy Commission to find a way to reduce FTB's data center energy cost. The outcome was DASH - the Data Automation Software and Hardware System. The system includes Fusible Link Curtains and variable speed fans to provide cooling through the under-floor channels. The system is providing both electrical and carbon dioxide savings on a daily basis: Data Center efficiencies have resulted in 58 percent reduction in fan energy use, 14.6 percent reduction in total energy use, 300 tons less carbon dioxide produced per year, and 310,000 kilowatts less electricity used per year.

Perspective on Human Capital Management

Christy Quinlan, Chief Deputy CIO

I am excited to announce that the OCIO, in partnership with the State Personnel Board (SPB) and other department's IT subject matter experts, are continuing to increase the availability of Open Continuous Online testing for IT classifications within the state. By doing so, we are able to change the decades-old antiquated testing processes which no longer fit the state's IT resource needs.

We are now able to hire staff quicker and provide higher level opportunities which have the potential to greatly enhance our IT Workforce. Open Continuous Online testing saves time and money and allows us to take advantage of recruiting talent as it becomes available.

Candidates are now able to test and apply for positions 24/7. The current IT Exam Schedule for the Open Continuous Online testing, the link for the SPB testing and other relevant information is now available on our newly released 'Jobs' webpage on our website. We look forward to expanding our efforts of online testing in our continuing effort to modernize the hiring of talented IT staff and putting the right talent, in the right job, at the right time.

Strategic Concept 6:

COLLABORATION THAT BREEDS BETTER SOLUTIONS

DESCRIPTION: Advancing communication and partnerships between stakeholders, external and internal to government, is critical to delivering innovative and effective government policies, programs and services.

Enhanced Collaboration

- Launched the California IT Wiki to engage state IT employees in the development of IT policy and standards and the sharing of best practices.
- Identified 85 opportunities for agencies to collaborate on IT systems through the IT capital planning process; represented 70 percent of all projects included in Statewide IT Capital Plan.

Built Valuable Partnerships

- Enhanced the state's backup and disaster recovery capabilities through a data center partnership with the State Compensation Insurance Fund.
- Worked with the State Personnel Board to streamline the hiring process for IT positions through continuous, statewide, online testing.
- Engaged the vendor community to identify innovative IT solutions aligned with the state's strategic initiatives.
- Partnered with the Department of General Services to develop innovative procurement strategies that reduce procurement cycle times and enable collaboration between the state and its vendor partners.

BEST OF CALIFORNIA

SOLVING BUSINESS AND POLICY PROBLEMS THROUGH SECURITY TECHNOLOGY

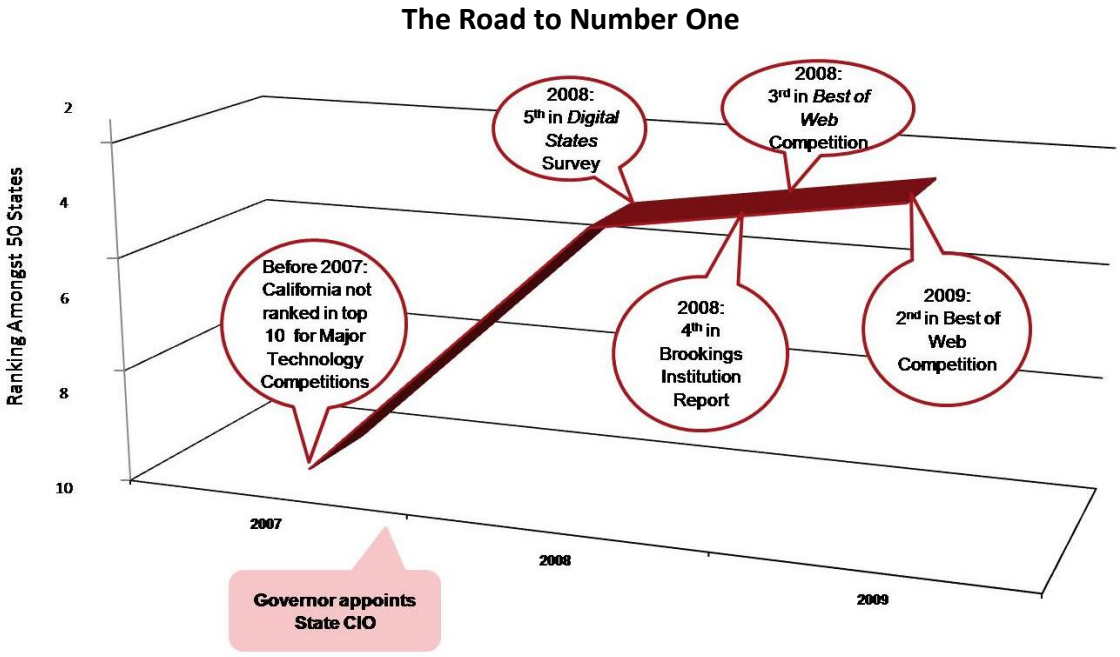
E-Hub Statewide Procurement and Implementation Team, Multi-Agency Team
For nearly a year the E-Hub Statewide Procurement and Implementation Team developed a collaborative approach to defining and developing a security solution for anti-spam, virus protection and encryption services for all executive branch e-mail. Well over 100 separate state e-mail systems deploying disparate architectures to handle mail hygiene such as spam and anti-virus are being consolidated into a single solution. Benefits include improved security and protection, reduced network load, e-mail encryption as an option, consistent toolsets and policies for e-mail management, and centralized administration. The technical members of the bid team continue to meet on a regular basis, setting statewide parameters and developing processes for implementation.

Focusing Our Talents

In the last 24 months, California has established itself as a leader among state governments in its use of information technology to improve the quality of government services and enhance the productivity of state government. The perception of California has changed from a state struggling to deliver large information systems projects to a state organized to leverage IT to meet the challenges of today and tomorrow.

Examples of recognition the state has received in the past two years, include the following:

- Placed 2nd in the 2009 *Best of Web* competition
- Ranked 4th in IT among the 50 states by the Brookings Institute
- Placed 5th in the biennial *Digital State Survey*
- Six projects selected as finalists for NASCIO awards in 2008 and 2009



In order to continue our winning ways the state must combine the talent of its dedicated employees with the vision that defines truly high achieving IT organizations. By virtue of our talent we are in elite company, but it will take coordination and dedication by all to ensure that we remain among the best.

BOOK 2

FACING THE FUTURE – ENABLING TRANSFORMATION

"I want to ask ourselves every day, how are we using technology to make a real difference in people's lives? ... Improving the technology our government uses isn't about having the fanciest bells and whistles on our website -- it's about how we use the American people's hard-earned tax dollars to make government work better for them."

President Barack Obama

Enabling Transformation through Strategy

As we enter the second decade of the twenty-first century, information technology plays an increasingly important role in dealing with the challenges of our time. From promoting and enabling economic growth and prosperity, to ensuring and expanding opportunity and access, technology has the power to transform the way our government operates and delivers services. Technology is modernizing our transportation, electricity and water infrastructures, while contributing to efficient and effective government. To achieve this transformation, we must appreciate technology as a strategic asset and not just a tactical tool. Therefore, our responsibility is to ensure that the state invests in and uses technology to advance the public's priorities.

The vision that drives and motivates this plan and the entire state IT program serves the needs of Californians through effective programs and services enabled by technology. As partners to policymakers and state agency leaders, the mission of the State CIO and the state's IT community is to improve the delivery of state programs and services for residents and businesses through agile, cost-effective, innovative, reliable and secure technology services and solutions. This technology-enabled transformation will occur within an operating framework known as *One IT* that serves as the platform for achieving the Six Strategic Concepts presented earlier. *One IT* is characterized by a strong planning capability, an integrated IT organization, defined enterprise architecture policies and standards, efficient procurement and human capital management policies and procedures, effective project and portfolio management practices, robust shared services, consolidated IT and telecommunications infrastructure, and effective fiscal and resource management practices. Thus, our focus is realizing the enterprise approach to technology that characterizes *One IT* in order to enable enhanced public services and advance the public's priorities, while reducing costs.

California adopted *One IT* as a framework to better manage state government's use of information technology and the platform to achieve its Strategic Concepts. *One IT* ensures common and shared IT infrastructure and services that promote integrated technologies. *One IT* enables data sharing and makes state government information transparent and accessible. In these ways, the state's *One IT* approach serves communities of interest in order to achieve beneficial policy outcomes.

The state's *One IT* Framework is characterized by:

- ❑ Strong planning
- ❑ Integrated IT Organization
- ❑ Defined Enterprise Architecture
- ❑ Efficient Procurement and Human Capital Management Practices
- ❑ Mature Project Management Capabilities and Thorough Oversight
- ❑ Robust Shared Services
- ❑ Agile, Reliable and Secure IT Infrastructure
- ❑ Effective Fiscal and Resource Controls

The first steps to realizing *One IT* was achieving management consolidation built around planning, enterprise architecture, IT project management and project oversight.

Strategic Planning and Enterprise Architecture provides the roadmap for moving from where we are, to where we want to be. They establish priorities to guide the use of limited resources. Standards enable IT solutions that are cost effective, reliable, reusable, secure, sustainable and interoperable.

Capital Planning ensures that IT investments are consistent with the Administration's policy and budget priorities, and reduces duplication and overlap. IT investments are linked to strategic and programmatic priorities. As a result, we have identified approximately $400 million in cost savings and avoidances to date.

Project Management and oversight ensures that IT projects are managed with the appropriate level of accountability and transparency. This establishes a systematic approach for managing, talking about, and monitoring IT projects across the state. A standard training program for IT project management provides consistency in delivering project results and a new state-led oversight framework reduces costs and enhances accountability.

Each of the functional areas within the *One IT* framework have a number of associated activities which set the foundation to enable the Strategic Concepts.

The state's IT community has made great strides in achieving the concept of *One IT*. As can be seen from the accomplishments of the past year, we have achieved many of the management consolidations necessary for *One IT* – what remains is infrastructure consolidation and resource control.

- ✓ Strong planning
- ✓ Integrated IT Organization
- ✓ Defined Enterprise Architecture

- ✓ Effective Procurement and Human Resource Reform
- ✓ Competent Project Management and Oversight
- ✓ Robust Shared Services
- ❑ Consolidated IT Infrastructure
- ❑ Effective Fiscal and Resource Control

Infrastructure Consolidation and Shared Services

Our strong foundation positions the state to develop an IT portfolio that efficiently serves California's vast and disparate constituencies through a myriad of programs. We are moving California's IT towards the future, but this transformation cannot proceed without the agencies seeking opportunities to lower their operating costs, improve their service levels to stakeholders, increase productivity, enhance security and respond faster to changes in business priorities.

In the current and foreseeable economic climate, the cost of government must be reduced. While cost reduction efforts initiated by the OCIO through IT policy letters are yielding results, these control mechanisms are tactical and are time and people intensive. More can and should be done to realize the vision for IT in California – a unified operating model that enables the efficient, effective and secure delivery of services to residents and businesses.

While the Governor's IT Reorganization Plan was a significant step forward, IT in the state remains highly decentralized from an organizational and budgetary perspective. To address this issue and reduce costs, the OCIO has worked closely with Agencies and departments to develop plans to consolidate IT infrastructure and provide shared services. Although most Agencies completed thoughtful infrastructure consolidation plans, the timelines are not aggressive enough to meet consolidation goals.

State of California
Franchise Tax Board

Consolidation Works

The Franchise Tax Board (FTB) was able to consolidate eleven email systems into one. They achieved cost savings and avoidances by reducing the number of staff required to maintain systems from 33 to 3 and realized service improvements because the one email system was now operated by experts with no system downtime.

FTB also did server consolidation and virtualization. They consolidated 390 servers saving $18.5 million over 5 years; reduced the number of server support staff from 54 to 29 (staff were redirected); realized significant cost avoidance by reducing new server growth by 50%; and implemented modern storage and backup technologies and techniques.

The best way to achieve these results is to simplify, standardize, virtualize and modularize the state's IT infrastructure through consolidation.

California's IT Consolidation framework demands two distinct but inter-related sets of activities. The first is management consolidation, the second is infrastructure consolidation. Management consolidation includes:

- Policy and Portfolio Management
- Security and Privacy Protection
- Green IT Promotion
- Desktop Standards

Infrastructure consolidation includes:

- E-mail Service Consolidation
- Network Unification
- Server Virtualization and Consolidation
- Data Center Optimization

These consolidation activities enhance and extend California's six strategic concepts while achieving the state's tactical goals, including:

- *Increased cost-effectiveness*
  - Economies of scale that lower costs
  - Reduced support and maintenance expenditures
  - Less overlap and duplication
  - Rationalized service contracts
- *Enhanced reliability, security and disaster recovery*
  - Consistent service/support for use of infrastructure
  - Enterprise data center, with back-up and recovery, for mission critical and public facing applications
- *Improved sustainability*
  - Reduced energy consumption and CO2 emissions
- *Effective management of human capital*
  - Standard processes and technologies help maintain skills and IT capabilities

Shared Services Work

The best example of shared services working is provided by the creation of the Office of Technology Services (formerly the Department of Technology Services) now an office within the OCIO. In 2005, the state's two major data centers merged to become the Department of Technology Services. Despite management and cultural challenges, rates were reduced by approximately $50 million between the years 2005-2008.

Between 2008 and today, the Office of Technology Services has been focused on improving services and reducing rates. Thus far, they have produced rate reductions of $16.5 million and expect an additional $6.6 million in savings to customers through FY 2010/11. Additional rate reductions will come from consolidation of network and e-mail services.

In order to achieve the benefits of IT management and infrastructure consolidation, IT executives must set targets ambitious enough to have an effect on operations but realistic enough to be achieved. The table below details performance targets in each of the eight categories that constitute IT management and infrastructure consolidation.

Targets	Targets
POLICY AND PORTFOLIO MANAGEMENT	**EMAIL SERVICE CONSOLIDATION**
• 80% of projects delivered on time and within budget • Project Managers trained in CA-PMM • Mitigate project risks	• Consolidation of email into shared services or central hub • Email compliance with regulations such as HIPAA, FTI, and PCI-DSS • Creating the capability of a statewide email directory
SECURITY & PRIVACY PROTECTION	**NETWORK UNIFICATION**
• Real time monitoring of IT information flow from all state agencies • NIST compliant model for state government to ensure security standards are maintained throughout the State • Consistent and accurate security incident reporting	• Consolidate IT networks that support the enterprise • Enhanced security monitoring for unified communications network
GREEN IT PROMOTION	**SERVER VIRUTIALIZATION & CONSOLIDATION**
• Decreased volume of paper printed • Increased online transactional services • Reduce carbon dioxide emissions by 35,000 metric tons; reduce energy usage by 50,000 MWh/year	• Reduce the total number of physical servers to save money • Provide business continuity, high availability and disaster recovery capability • Increased flexibility of servers
DESKTOP STANDARDS	**DATA CENTER SERVICE OPTIMIZATION**
• Central administration for desktop hardware and support • Energy Star computing throughout the enterprise • Secure data on the desktop	• Housing critical applications in Tier 3 state-owned facilities • Reduce data center floor space by 50% • Improve internal processes at all state-owned data centers

Strategic Concepts and Strategic Actions

Book 2 extends the Strategic Concepts discussed in Book 1 through strategic actions. These actions, along with the projects included in the IT Capital Plan, are serious steps for the fulfillment of the Strategic Concept. The strategic actions further public priorities, advance statewide policy initiatives, and ensure enterprise security. Each of the six strategic concepts is presented in a standard format:

- The ***Strategic Concept***
- ***Purpose*** of the concept; and the
- ***Strategic Actions*** to achieve the concept.

Strategic Concept 1: IT AS RELIABLE AS A UTILITY

The idea of IT as a utility is a powerful one, it means providing the agile, effective, extensible, reliable and secure IT infrastructure and shared services necessary to meet program needs of state agencies.

By standardizing the way we build and operate IT services and by leveraging the dollars that would otherwise be spent on maintaining and refreshing our disparate architectures, we can dramatically improve the value and reliability of IT as an indispensible business tool in delivering the functions of state government.

> *"When overcapacity is combined with redundant functionality, the conditions are ripe for a shift to centralized supply. Yet [organizations] continue to invest large sums in maintaining and even expanding their private, subscale data centers. Why? For the same reason that manufacturers continued to install private electric generators during the early decades of the 20th century: because of the lack of a viable, large-scale utility model. But such a model is now emerging..."*
>
> *Nicholas Carr*

Strategic Actions

1: Migrate existing state data centers to a three-site, virtual data center operating model in which applications run on a shared IT infrastructure.

- Establish the engineering and business-driven uptime requirements at the application, system and shared services levels.
- Decommission the Cannery data center raised floor by June 2010, decommission non-Tier III data centers by 2013.
- Transition mission-critical and public-facing applications to Tier III data centers.
- Implement standard security practices, management tools, configurations and builds for servers, networks and storage.

2: Establish enterprise security and privacy policies, standards, and guidelines that support an agile, adaptable, and resilient technology infrastructure.

- Complete the gap analysis of state's information security policies**.**
- Conduct an enterprise information security risk assessment**.**
- Securing the state's domain name service (DNS).

3: Migrate existing network services to the unified California Government Network.

4: Transition existing e-mail and e-mail hygiene systems and/or services to the state's shared service solution.

5: Develop e-Discovery, archiving and other office automation shared service offerings.

Strategic Concept 2: Fulfilling Technology's Potential to Transform Lives

"Things alter for the worse spontaneously, if they be not altered for the better designedly."
Francis Bacon

Providing accessible, reliable and secure services that meet the needs of California's residents and businesses is one of the best ways the state can meet the expectation that government helps serve the people it governs.

Strategic Actions

1: Expand and enhance online services.
- Electronically enable 90 percent of government transactional services.
- Augment the number of online self-service channels by 25 percent.
- Expand the number of mobile and real-time services by 10 percent.
- Increase the adoption rate of self-service channels by 50 percent.
- Engage constituents to guide the development and enhancement of online services.

2: Develop self-service portals that leverage shared service solutions.
- Investigate the development of an enterprise business portal that makes business licensing and registration processes transparent to end-users by leveraging existing solutions.
- Develop a plan for a single eligibility portal for health and human service programs leveraging one of the portals developed for the existing Statewide Automated Welfare systems.

3: Establish an information-centric, enterprise Data Loss Prevention strategy and solutions that address the security and privacy of data at rest, data in use, and data in transit.

4: Make government services accessible through a single, secure digital identity that provides end-to-end security.
- Develop and implement a secure, enterprise federated identity solution that enables single sign-on for residents, approved business partners, and state employees.

5: Develop and publish privacy and data protection standards aligned with the state's Enterprise Architecture for implementation within new IT systems, infrastructure and services.

Strategic Concept 3: SELF GOVERNANCE IN THE DIGITAL AGE

By engaging Californians about the issues important to them and enabling greater public accountability through enhanced transparency and accessibility, the state can derive significant value from its use of, and investment in, information technology.

"Whenever the people are well-informed, they can be trusted with their own government."
Thomas Jefferson

Strategic Actions

1: Enhance the state's transparency portal by expanding access to additional types of public information, improved search functionality, and new features.

2: Provide the technology solutions and tools necessary to support openness and transparency as the default for state agencies.

3: Expand access to state-owned data sets and databases.
- Enhance the value of state data sets through data visualization tools.
- Increase the number of data sets available at www.ca.gov/data by 50 percent.

4: Enable the engagement of constituents and other stakeholders in the development public policy through digital channels and tools.

5: Modernize records management through standard policies and procedures to prevent the loss of public data and information.

6: Enhance accessibility through the deployment of technologies that exceed the requirements of Section 508 (29 U.S.C. 794d).

7: Implement an enterprise content management solution.

Strategic Concept 4: INFORMATION AS AN ASSET

If knowledge is power, then it follows that information is the seed of power. Much of what we do in state government is about information: its collection, analysis, generation, and publication. Through information technology we can leverage the state's vast information resources to facilitate informed policymaking and enhance the performance and productivity of state programs and services.

"In God we trust, all others bring data."
W. Edwards Deming

Strategic Actions

1: Develop an Enterprise Information Management solution to provide a single, accurate, and consistent source of data and information for policymakers and program executives.

2: Establish and implement standards for database management and integration that enable consolidation of data and software reuse.

3: Implement risk-based policies, standards, and guidelines for data exchange and systems interconnectivity between state agencies and its public and private business partners.

- Establish a California-modified version of the NIST 800-53 recommended security controls within all state agencies.
- Establish the Consensus Audit Guidelines (CAG) as an alternative, risk-based security risk management framework for those agencies formally exempted from NIST 800-53 requirements.

4: Establish agreements with public, non-profit and private sector organizations to invest strategically in data and information assets and promote reusability.

5: Leverage geospatial data and imagery to enable public safety and emergency response agencies to share a common operating picture for planning and response.

6: Create and share common geospatial data sets and imagery of roads, landmarks, and real estate parcels.

7: Integrate geocoding capabilities into new applications and retrofit existing applications with this capability using programmatic criteria.

Strategic Concept 5: ECONOMIC AND SUSTAINABLE

With perpetually stretched state budgets, it is essential to design our operations, and services to meet the rigors – present and future – of doing more with less. Economic and sustainable means ensuring that the state's management and use of technology contributes to efficient government operations and furthers the state's environmental goals through green IT best practices and policies.

> *"Far and away the best prize that life has to offer is the chance to work hard at work worth doing."*
> *Theodore Roosevelt*

Strategic Actions

1: Implement standard fiscal and resource management practices for state IT spending.
- Establish and implement a process for agencies to submit detailed information on actual and projected IT and telecommunication expenditures.
- Utilize a standard portfolio management process and standard set of tools.
- Modernize the state's IT project oversight framework.

2: Leverage technology enabled solutions to enhance efficiency and effectiveness.
- Develop common approaches and solutions for call and document imaging centers
- Implement a grant management solution that integrates with a single portal.
- Develop a statewide security incident reporting system.

3: Consolidate and virtualize servers and storage to reduce costs and energy usage.
- Establish a "virtual first" policy for new enterprise hardware.
- Develop security policies and standards to support virtualization.

4: Develop and implement computing as a service offerings (Software as a Service, Platform as a Service, Infrastructure as a Service) to reduce costs and provide capacity during peak workloads.

5: Modernize legacy systems through re-hosting and re-platforming applications.

6: Reduce the amount of data center square footage utilized by 50 % by July 2011.

7: Enhance security and reduce cost through the development of a secure Internet hub.

8: Establish standard hardware builds, images, and management tools for desktops and mobile computing devices (e.g., laptops, netbooks, smart phones).

9: Develop acquisition and security policies to enable telework and mobile computing.

10: Transition remaining mainframe print customers to the Go-Online solution, reducing printing by 96 million pages annually and transition customers to green alternatives to microfiche and tape.

11: Develop a Radio Vault and Tower infrastructure consolidation framework for centralized oversight, management and upgrade.

12: Enhance the 9-1-1 to refine caller location and include routing technology, supporting state and local public safety answering points' efforts to effectively process cellular 9-1-1 calls.

STRATEGIC CONCEPT 6: FACILITATING COLLABORATION THAT BREEDS BETTER SOLUTIONS

With more than 38 million residents, California has the opportunity to leverage technology to advance collaboration and develop partnerships with residents, businesses, and other stakeholders, external and internal to government, to delivering innovative and cost effective government policies, programs, and services.

"Many ideas grow better when transplanted into another mind than the one where they sprang up."
Oliver Wendell Holmes

Strategic Actions

1: Deploy Web 2.0 (Social Media) and collaboration technologies to allow Californians to offer suggestions as part of the policy development and deliberative process.

- Develop security policies and standards to enable the use of cost-efficient Web 2.0 technologies in a secure manner for all state agencies.

2: Modernize human capital development programs to support the virtual data center operating model.

3: Develop a secure collaboration environment for state IT personnel to develop technology solutions, share knowledge and participate in Web-based training.

4: Establish a virtual help desk to leverage the knowledge and expertise of IT employees across the state using standard service management processes and solutions.

5: Collaborate in the development of common and interoperable technology frameworks for Intelligent Transportation Systems, the "Smart Grid", eHealth (Electronic Health Records and Telemedicine solutions), and Public Safety Communications.

6: Create the California Information Sharing and Analysis Center (CA-ISAC) as a Web portal to provide a central resource for gathering information on cyber threats to the state's IT environment and critical infrastructures.

7: Utilize private and public partnerships to implement robust privacy-enhancing technology solutions for government agencies in California.

8: Identify opportunities for, and develop partnerships with public libraries, community technology centers, and other community-based organizations to provide digital literacy services and training to the public.

9: Partner with local governments on the state's virtual data center.

10: Expand public-private partnerships to deliver innovative IT solutions through performance-based and benefits-based procurements.

Focusing on Results

California's data, information and technology assets are public assets paid for by public dollars. As such, state agencies are obligated to properly steward these assets in the most cost effective-manner. And you cannot manage what you cannot measure. As part of California's pursuit of the six strategic concepts and their associated actions, the OCIO will be rigorously measuring our progress against our objectives. The table below displays the baselines and targets for key IT metrics.

Performance Metrics

Infrastructure Rationalization		
Metric	**Baseline in FY2008/09**	**Target in FY2013/14**
# of servers	10,000	5,000
Data center capacity (sq. ft.)	364,000	182,000
# of Wide Area networks	70+	1
# of email boxes in E-hub	0	180,000

Reliability		
Metric	**Baseline in FY2008/09**	**Target in FY2013/14**
% of state agencies with current IT disaster recovery plans (per year)	84.86%	100.00%
System availability	99.90%	99.99%
Network availability	92.70%	99.00%

Service		
Metric	**Baseline in FY2008/09**	**Target in FY2013/14**
Public satisfaction with online services	N/A	80.00%
Service level agreements met	N/A	90.00%

Sustainability		
Metric	**Baseline in FY2008/09**	**Target in FY2013/14**
Energy used (MWh/year)	170,000	125,000
Carbon dioxide emissions (Metric Tons)	85,000	50,000

Project Management		
Metric	**Baseline in FY2008/09**	**Target in FY2013/14**
% of projects delivered on time and within budget	58.00%	80.00%
% of projects completed within budget	75.00%	85.00%
% of projects delivered on time	68.00%	80.00%

Security		
Metric	**Baseline in FY2008/09**	**Target in FY2013/14**
# of electronic data breaches (per year)	90	9
# of breaches resulting in the loss of Personally Identifying Information (PII)	3	0
# of websites compromises	70	7

The Road Ahead

In the past 24 months, the state's IT program has made measurable progress in achieving value through the Six Strategic Concepts and has built a strong foundation for transformation through the creation of, and progress toward *One IT*. As such, the challenge ahead is not just to "do IT better" in the context of the past models for government operations, it is to truly transform the way the state delivers programs and services so that they are more integrated, focused, cost-efficient and effective in achieving beneficial policy outcomes.